

# MOTOR EQUIPMENT DIVISION

It would be impossible to function as a highway patrol without a fleet of vehicles. In 1931, the first Missouri State Highway Patrol fleet consisted of 36 new Ford Model A roadsters, a Plymouth sedan, an Oldsmobile, a Ford sedan, a Buick, and three Chevrolets. Also included in the fleet were 12 Harley Davidson, three Indian, and two Henderson motorcycles. The Model A roadsters were purchased new from Steelville Garage, Steelville, MO, for \$413.18 each. The vehicles were equipped with twin Klaxon horns, a spotlight, a fire extinguisher, a first aid kit, and an electric "PATROL" sign behind the right side of the windshield. All Patrol vehicles had license plates with the words "STATE PATROL" in bold letters, but there were no decals on the sides. None of the vehicles had sirens. Also, there were no heaters in the cars.

Colonel Lewis Ellis wanted the public to be aware that these drivers were officers of the new Missouri State Highway Patrol, so officers driving the roadsters were instructed to drive with the top down except in inclement weather. In 1932, improvements were made to Patrol vehicles. A small decal bearing the state seal and "Missouri State Highway Patrol" were placed on the doors and a new light for stopping motorists at night was mounted on the right front fenders. This lamp displayed "STOP" when turned on. Patrol cars were not yet equipped with sirens or communications equipment. Public broadcast receivers were first installed in Patrol cars in 1933.

1940 brought some excitement to the Patrol fleet. In April 1940, the Highway Patrol Safety Squadron was organized. To support the squadron, 13 white motorcycles, one white Ford coupe and house trailer, four white panel trucks, and two white coaches were utilized. Also in 1940, a combination siren and red light was mounted on the left, front fender of each patrol car.

In 1942, patrol cars had the words "STATE PATROL" painted in bold letters on both front doors. Also, for the first time, these vehicles also had car numbers painted on the roof. By 1942, two-way communications equipment had been installed in all Patrol cars. At the close of 1942 the Patrol had 128 motor vehicles in operation. The fleet consisted of 77 Fords, 23 Chevrolets, three Plymouths, eight Pontiacs, one Buick, one International truck, 15 motorcycles, and one house trailer.

At the height of World War II, it was virtually impossible for the Patrol to purchase new cars. In 1943, arrangements were made with the Highway Department garage in Jefferson City to completely overhaul Patrol cars. A September 22, 1943, memorandum to troop commanders noted that due to the "shortage and difficulty in obtaining repair parts, it is necessary that cars be handled in such a manner as to prolong to the utmost their condition of good repair". The memorandum went on to state, "It is imperative that cars which have been overhauled be broken in as follows: Not over 25 mph for the first 100

miles. Add five mph for each additional 100 miles until the car has been driven 700 miles. For the next 500 miles, the car must be driven under 60 mph."

A new look came to Patrol cars in 1948 when large door decals designed by Trooper Tom Pasley were placed on the cars. A smaller and similar version of this decal is still in use today. The words "STATE PATROL", in white letters, were placed on the rear of the vehicles. Red lights and sirens were placed on the top of patrol cars for the first time in 1949. Red lights were also placed in the rear window, marking the first time warning lights faced the rear. Also, rearview mirrors were added to 1949 model cars. In 1951, the emergency red lights flashed on and off for the first time. Prior to this, the lights were constantly lighted.

Except for the Safety Squadron in 1940, all Patrol cars were black until 1954. In 1954, the Patrol purchased 30 new light blue vehicles. Twenty-six of the new blue vehicles were Ford Interceptors, especially designed for police work. The Interceptors had 161 horsepower engines, larger tires, and heavy-duty suspension and seats.

In January 1955, a Patrol Garage for the installation of patrol equipment and minor car maintenance was opened. This garage was located at Troop F in Jefferson City. In June 1955, the Motor Equipment Division was created. This division would be responsible for the purchase and maintenance of motor equipment. Sergeant H.H. Schaperkoetter was placed in charge. Seat belts were installed in all patrol cars before the end of the year. Also, this same year, the Patrol started a new program of soliciting bids for patrol vehicles. Bids were taken on 400 new cars to be delivered the next year. Cars were scheduled for replacement at 25,000 miles. Prior to this, cars were driven 65,000 miles or more before replacement. The successful bidder was a Dodge dealer in Columbia.

Late in 1957, a contract was established for four hundred fifty-five 1958 Chevrolet sedans. A new, oscillating, red light was mounted on the roof and the siren was placed on the right fender. In 1959, the Patrol purchased Dodge patrol cars. These vehicles were unique in that for the first time, some of the cars were two-door hardtops. One of the 1959 Dodge patrol cars, a four-door sedan, remains in operation today. Our public information and education officers drive this vehicle in parades and take it to other community events throughout the state.

Portable commercial scale units were first utilized in 1960. Four pickup trucks equipped with service bodies carried the portable scale equipment.

In 1961, license plates bearing the officers badge number were assigned to every member to display on their assigned vehicles. By 1961, there were 477 vehicles in operation within the Patrol's fleet. Vehicles were replaced at 50,000 miles. In 1962, vehicle maintenance shops were constructed at Troops A and C. Gasoline tanks and pumps were installed at most troop headquarters in 1962. A diverse mix of patrol cars was purchased throughout the 1960s. Patrol cars purchased in 1963 included Ford Galaxie sedans equipped with 390 cubic inch engines, Chrysler Enforcer four-door sedans equipped with 413 cubic inch

engines, Buick LeSabre four-door sedans equipped with 401 cubic inch engines, Dodge 440 four-door sedans equipped with 383 cubic inch engines, Dodge 880 four-door sedans equipped with 413 cubic inch engines, Oldsmobile Dynamic 88 four-door sedans with 394 cubic inch engines, and Chevrolet BelAir four-door sedans with 409 cubic inch engines.

Gasoline tanks and pumps were purchased by the Patrol and installed at Highway Department properties throughout the State in 1964. Gasoline was purchased on a contract bid basis. These tanks were installed and maintained by Motor Equipment Division personnel. The fleet had grown to 532 vehicles in 1964.

Prior to 1966, Patrol cars did not have air conditioning. Concerns over durability, added cost, and public acceptance had prevented the Patrol from including air conditioning in vehicle purchases. In 1965, the Patrol received permission from Governor Hearnes to begin purchasing patrol vehicles with factory-installed air conditioning. Most 1966 model patrol cars were ordered with air conditioning. An April 13, 1966 memorandum to troop commanders instructed officers to turn their air conditioning off any time the speed of the patrol car exceeded 70 mph or whenever the car was rapidly accelerated. The reason for the directive was to prevent compressor clutch or drive belt damage.

Six Harley Davidson motorcycles were purchased in 1971. They were used on special details such as fairs, parades, and for traffic control in congested areas. Patrol cars in 1971 included AMC Ambassador sedans equipped with either a 360 or 401 cubic inch engine. Ambassadors were purchased again in 1972 and 1973. In March 1972, Mr. Warren McGee was selected as director of the Motor Equipment Division. Mr. McGee was the first civilian to hold that position. By 1974, the Patrol fleet had grown to approximately 800 vehicles.

Patrol personnel began installing Federal Twinsonic light bars on patrol cars in May 1975. In 1977, twelve Plymouth vans were purchased for use by motor vehicle inspectors. Cargo and passenger vans have been utilized for many years and for a variety of purposes including commercial vehicle enforcement, communications, driver examination, motor vehicle inspection, and student transport. Twelve Kawasaki motorcycles were purchased in 1979, increasing the number of motorcycles within the fleet to 18. Two motorcycles were assigned to each troop. Cruise control was a new feature added to patrol cars in 1979. Patrol cars throughout the 70s included Chryslers and Mercurys along with some Buicks, Pontiacs, Chevrolets, and Plymouths

The General Headquarters garage moved to a new building and the current location on U.S. Highway 50 east of Jefferson City and behind Troop F Headquarters in March 1981. By this time, the garage had become a full service repair facility. The garage shares this facility with the Radio Shop.

For 1982, mid-size Patrol cars were added to the fleet. Fifty-two Ford Fairmont sedans were added to the fleet in 1982. The vehicles were not well received due to the small size and poor handling and performance when

compared to full size patrol cars. The Patrol soon returned to conventional full size patrol cars.

Legislation created in 1983 is the basis for today's Missouri State Highway Patrol car program. Prior to 1983, retired Missouri State Highway Patrol cars were disposed of by trading the old cars to the dealers providing our new vehicles. Senate Bill No. 345 passed in 1983 authorized the Patrol to sell surplus patrol vehicles to other governmental entities. Initially, sales were limited to Missouri entities. The statute was later modified, allowing sales outside of Missouri and also conditional sales to the general public. The legislation created a revolving fund that directs all funds received by the Highway Patrol from the sale of Patrol vehicles be credited to this fund. Fund balances can be used only for purchase of replacement patrol vehicles.

A military surplus M-20 armored personnel carrier was obtained in 1984. This six-wheel vehicle weighs 15,650 pounds and can carry six people inside. It could be used to provide safe transfer and deployment of Patrol personnel in hostile or emergency situations.

To address the increasing amount of equipment installed in our patrol cars, bucket seats were examined in 1985. Twenty Dodges with a 40/40 bucket seat arrangement were purchased in 1985 for evaluation. However, it was not until 1995 that bucket seats became standard in Missouri State Highway Patrol cars. By this time, air bag supplemental restraint systems had become standard equipment on patrol cars and the bucket seat configuration was necessary to keep installed equipment out of air bag deployment zones.

In 1986, a Ford truck equipped with special explosives disposal equipment was purchased. This vehicle was replaced in 1993 with a full size van and explosives disposal trailer combination. In 2004, a new Freightliner truck was purchased for the explosives unit along with a new explosives disposal trailer.

New Light bars were installed on marked patrol cars beginning in 1986. These Code 3 Force XL light systems included two high-power halogen take-down white lights designed to shine in the rear window of a vehicle being stopped. The take-down lights could also alternately flash when the revolving red lights were in operation.

The Motor Equipment and Aircraft Divisions merged in 1987 under the direction of Captain W.J. Turner. The two divisions later separated with Captain Turner remaining as director of Motor Equipment.

Ford Mustangs appeared on the scene in 1988. The Patrol acquired 17 high performance Mustangs that were assigned throughout the state. These Mustang LX Special Service Package two-door sedans were equipped with 5.0 liter high output fuel injected V8 engines and a four-speed overdrive automatic transmission. Mustangs were purchased again in 1989, 1990, and 1993. The later Mustangs were equipped with five-speed manual transmissions. Also in 1988, the first Patrol formed a K-9 unit. For transporting the dogs, Motor Equipment Division personnel fabricated and installed special K-9 containers in the rear seat area of 1988 Chevrolet Caprice patrol cars.

By the end of the 1980s, the offering of full-size police car models was drastically reduced. Chrysler Corporation completely dropped out of the police market. General Motors was offering only the Chevrolet Caprice; for Ford, it was the Crown Victoria.

During the 1990s, Patrol personnel began obtaining motor fuel from MoDOT. Most Patrol-owned tanks were removed or transferred to MoDOT. Also, underground fuel storage tanks at troop headquarters were removed.

Motor Equipment Division personnel constructed a rollover simulator in 1990. This simulator demonstrates the value of using seat belts. The simulator is used by public information and education officers around the state. The rollover simulator was so successful that nine simulators were eventually constructed with one assigned to each troop. In 1991, auto technicians from the Motor Equipment Division began outfitting cars with special safety equipment for use at the Highway Patrol's newly constructed defensive driving track. A small number of cars were outfitted with roll bars, fire suppression systems, and racing style fuel cells, and five-point seat harnesses.

Following a study and evaluations conducted in 1993, the Patrol began adding blue emergency warning lights to patrol cars in combination with the existing red lights.

In 1994, the Motor Equipment Division merged with the Construction and Maintenance Division. Captain Paul P. Loutzenhiser was appointed director of the combined division. Patrol cars in 1994 were Chevrolet Caprice 9C1 sedans equipped with the high performance LT1 engine. The fleet size in 1994 had grown to approximately 1,000 vehicles. In 1996, following the untimely death of Captain Loutzenhiser, the Motor Equipment and Construction and Maintenance Divisions were separated and Mr. Larry Rains was appointed director of the Motor Equipment Division.

This same year, General Motors stopped building the Chevrolet Caprice 9C1 police car. Chrysler Corporation had dropped out of the police market several years prior. This left Ford Motor Company as the only American manufacturer of a full-size police patrol vehicle. Starting with the 1996 model and continuing through 2006, the Ford Crown Victoria Police Interceptor is the primary vehicle in our patrol fleet.

The last two motorcycles in the fleet were retired in 1996. One of the last two motorcycles, a Kawasaki, now resides in the Patrol's Safety Education Center.

The Patrol obtained several surplus military pickup trucks in 1994 through 1996. These Dodge and Chevrolet trucks were refurbished by Motor Equipment Division personnel and placed in service in our Marijuana Eradication program. In 1997, the Patrol obtained two military surplus Peace Keepers. These armored vehicles were refurbished by Motor Equipment Division personnel and assigned to the SERT teams in Troops C and D. A V-100 armored vehicle was also obtained in 1995 and assigned to Troop A SERT.

In 1998 Motor Equipment Division employees began installing new Code 3 MX7000 light bars on fully marked patrol cars. Code 3 was the successful bidder for this new lighting system, which included more light output than previous light bars. This new lighting system included an amber light traffic advisory system, and the siren speaker was relocated from the light bar to the vehicle grill.

In 1998, the Patrol purchased 10 Chevrolet Lumina patrol cars. This was the Patrol's first experience with mid-size front-wheel drive patrol cars. Then in 2001, the Patrol purchased 27 Chevrolet Impala front-wheel drive patrol cars. Impala patrol cars continue to be utilized in several capacities within our fleet including administrative, investigative, and gaming officer assignments. Thirty-nine Impalas were purchased in 2006.

The fleet has now grown to 1,200 vehicles and includes a diverse mix of patrol cars; light, medium and heavy-duty trucks; cargo and passenger vans; sport utility vehicles; and a number of specialty vehicles for DWI enforcement, SERT, commercial vehicle enforcement, narcotics, explosives disposal, and EVOC. Nineteen individuals are employed within the Motor Equipment Division including 15 garage personnel and four office staff. With the exception of Troop F, all troop headquarters have vehicle maintenance facilities and employ either one or two technicians to keep our vehicles in top running condition. Troop F vehicles are maintained at the General Headquarters Garage. A collision repair facility was added at the General Headquarters garage in 2005. Light emitting diode emergency lighting is being pursued, and before the end of 2006, will begin replacing some of the existing warning lights.